TOKAI CARBON CB
Building a Future of Technology and Trust

Long B. Nguyen
Environmental, Health & Safety Manager

301 Commerce Street, Suite 500
Fort Worth, TX 76102

December 18, 2020

Director, Air Enforcement Division
U.S. Environmental Protection Agency
MC 2242A
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

Director of Litigation
Litigation Division, MC-175
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Cheryl Seager
Director
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U.S. Environmental Protection Agency, Region 6
1201 Elm Street
Dallas, TX 75270

Division Chief
Environmental Protection Division
Office of the Attorney General of Texas
P.O. Box 12548, MC 066
Austin, TX 78711-2548

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611

Re: Installation of Wet Sulfuric Acid Technology at the Tokai Carbon Borger Plant
Confidential Business Information

Dear Sir/Madame:

This letter is to supplement Tokai's request under Paragraph 70, of the Consent Decree (CD) that the deadline to operate the pollution control equipment required for SO_2 and NOx at our Borger Plant be extended from April 1, 2021 to July 15, 2021. It also requests that any deadlines that were triggered by the startup of that equipment be rolled forward and be keyed off the July 15, 2021 date.

As we explained in our previous submissions (the letter of December 10, 2020 and the e-mail to Mr. Quinn and Ms. Ortega on December 16, 2020), this delay is caused by circumstances beyond the control of Tokai and its contractors, and is caused by a documented technical concern related to the installation of the epoxy lining necessary for the proper functioning of the control equipment and its warranty. The epoxy lining required for the equipment must cure for several days at temperatures of at least 55 ^{o}F. If the ambient temperature drops below 55 ^{o}F for any period in a 24-hours span while the epoxy is curing and if the epoxy cannot cure as intended, it will not function as designed and could void the manufacture's and contractor's warranty.

As promised, attached is the supporting documentation for our request.

1) **Attachment A** is a copy of the technical specifications for the impacted duct work;

2) **Attachment B** is a November 30, 2020 letter from the contractor, Electro Chemical, to Tokai stating that epoxy must cure at certain minimum ambient temperatures;

3) **Attachment C** is a November 30, 2020 email exchange between Electro Chemical and Tokai in which Electro Chemical confirms that there are no alternative processes to curing the epoxy in the

correct temperatures and that not curing at the required temperature would affect that warranty.

4) Here is a link to https://www.weather-us.com/en/texas-usa/borger-climate to give you an overview of the average temperatures in Borger which shows that, on average, temperatures are not above 55 ^{o}F for a 24-hour period until June.

Again, as stated previously, we are on schedule for the implementation of the CD controls in every other respect. Thank you for your consideration of our request and please let me know if you have questions or need additional information.

Sincerely,

Long B. Nguyen

Attachment A

Copy of Technical Specifications

TECH FACTS

Specification For Welded Steel Tanks, Stacks, Ducts or Other Fabricated Equipment For Protective Linings and Coatings

A. Material

Material shall be new, full weight steel, free from laminations or other physical imperfections. All plates shall be flat, with no appreciable buckle or warpage. All sharp edges on sheared plates must be removed, especially on the inside of tanks. The thickness and weight per square foot shall be within the A.S.T.M. and A.N.S.I. mill tolerances as shown.

Plate Thickness	Pounds per Square Foot
12 Gauge 7/64" (.104)	4.375 lbs.
10 Gauge 9/64" (.134)	5.63 lbs.
3/16"	7.66 lbs.
1/4"	10.21 lbs.
5/16"	12.36 lbs.
3/8"	15.32 lbs.
7/16"	17.87 lbs.
1/2"	20.2 lbs.

B. Dimensions

All dimensions and tolerances shall be specified. Fabrication dimensions must allow for lining thickness, with particular attention to hinged covers, sight glasses and lined bolt holes.

C. Construction

1. Tanks or welded parts shall be fabricated in accordance with standard industry practice to obtain a practical product and uniform quality.
2. All tanks shall be constructed with a minimum number of pieces. Rectangular tanks of the open top type shall be properly reinforced in accordance with accepted practice in order to provide adequate structural strength to prevent bulging. This refers to minimum structure requirements on tanks for coating or lining. A print or other information, showing the required reinforcements, is to be supplied, in which case these reinforcements are to be figured according to print or special information transmitted with the inquiry. Where tanks or equipment have unlined, sealed false bottoms, or sealed compartments, venting of compartments must be provided to prevent rupture due to expansion of entrapped air during any hot air cure or baking process.

ELECTRO CHEMICAL ENGINEERING & MANUFACTURING CO.
CORROSION SPECIALISTS
750 BROAD STREET, EMMAUS, PA 18049-0509
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E-MAIL: inquiry@electrochemical.net

C. Construction

(Continued)

3. The companion flanges of sectional tanks which are bolted together must be square, plumb, and smooth, and sections must fit exactly when bolted together. The open ends of sectional tanks shall be provided with suitable bracing so they will not become distorted in transit. Sectional tanks shall be permanently match marked on spots that are not to be covered with elastomers or polymers, in order to accurately indicate their position when assembled.
4. Fabricator shall supply necessary bolts, nuts, washers, and gaskets to complete any assembly shown on the drawings.
5. On tanks with dished heads, the dished heads are to be flanged in such manner as to eliminate wrinkles at the knuckle radius.

D. Welding and Grinding

1. All welded joints and seams that will be coated or lined shall be ground flush with adjacent metal and shall be smooth, solid and continuous, free of holes, porosity, lumps, high spots, sharp edges, undercutting and pockets. Weld defects shall be repaired. See sketches for welding fabricating requirements on these surfaces.
2. All corners and all weld seams are to be ground to a minimum radius of 1/4".
3. Partitions, braces, supports, or other attachments on the inside of the tank must be fitted flush against the adjacent surface and full welded from all sides. Spot welding is not permissible. (Welds are to be ground per (1) above.)
4. All body and bottom seams must be butt welded, with continuous solid welding throughout. Lap seams are not allowed. All welding must develop strength equal to or greater than 80% of the strength of the adjoining parent metal. Vendor shall assume all responsibility for strength of welds and submit weld design and specifications when requested.
5. On pressure or vacuum tanks (or on other items specified) all fabrication shall be in accordance with the A.S.M.E. code for unfired pressure vessels. Quality of weld and the weld deposit shall equal that specified by the code. When a fully inspected and stamped code vessel is required, it should be specified on print and order.
6. Misalignment of plates at butt weld seams shall not exceed 1/32".

E. Outlets

1. The size, construction and location of outlets shall be in accordance with instructions on the order or print, or both. All flanges must be parallel with the tank, so that the pipe line will leave the tank at right angles to the surface of the same, unless otherwise ordered. For all closed vessels, suitable for protective lining, all manholes shall be not less than 20" in diameter, 24" diameter is preferred.
2. Pad outlets are to be continuously welded. Tapped holes may extend through pad but not into tank shell.
3. Vacuum service: Pad outlets of vacuum tanks are to be made of steel plate. No cast iron or cast steel is permitted.
4. Threaded outlets are not permitted on vessels to be lined or coated.

F. Domes and Fittings

When cast iron or steel domes and fittings are specified, they shall be free from porosity and sand holes.

G. Tests

1. Pressure
   Either test or working pressure, or both, of closed tanks shall be specified on the order, specification or print. If no pressure requirements are specified, all closed cylindrical storage tanks shall be thoroughly tested for leaks.
2. All tests by vendor may be observed by Electro Chemical or final customer's representative on request.
3. If required by Electro Chemical or final customer, the vendor shall furnish affidavit of tests.

H. Inspection

Electro Chemical and/or final customer reserves the right to inspect all tanks at the vendor's plant, both during fabrication and upon completion.

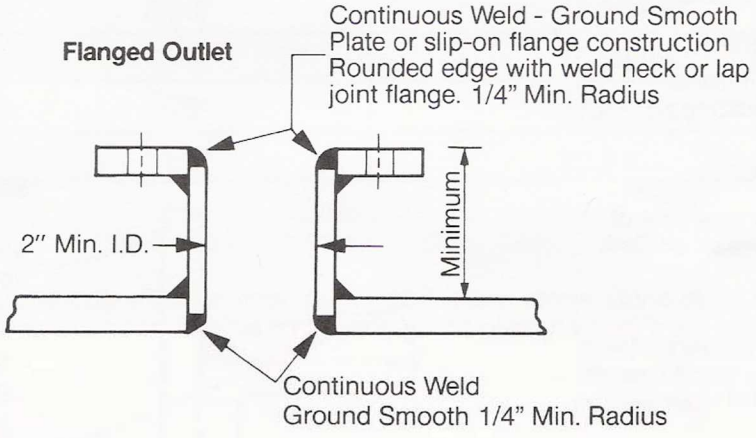
I. Rejection

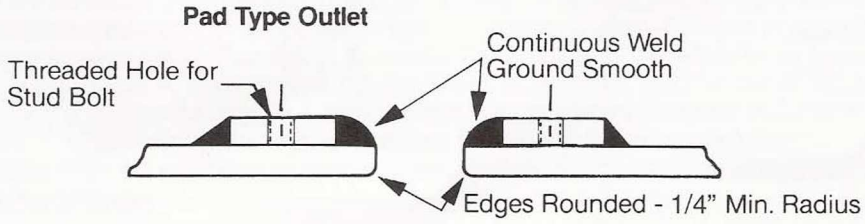
Failure of a tank to meet the above specifications in any detail shall constitute sufficient cause for rejection of such tank and returned to the vendor at the vendor's expense.

J. Shipment

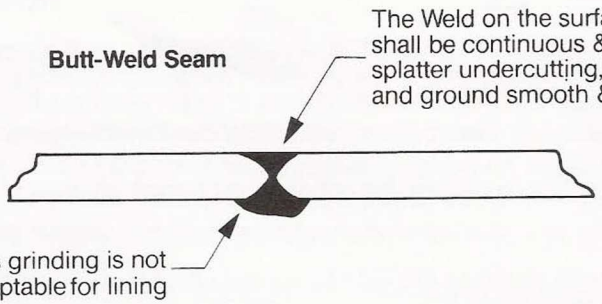
Tanks shall be loaded and secured for shipment in such a manner as to insure delivery to Electro Chemical plant in first-class condition. If the weight exceeds 1,000 lbs., such weight is to be painted on the tank in a conspicuous place. Cylindrical tanks with manholes shall be loaded with manholes **45°** from bottom.

Open top rectangular tanks shall be loaded with open side upward unless prohibited by lack of clearance.

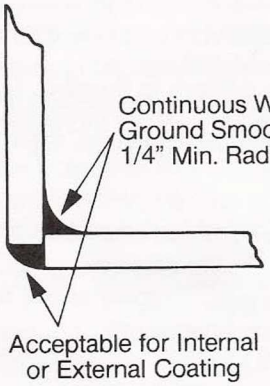




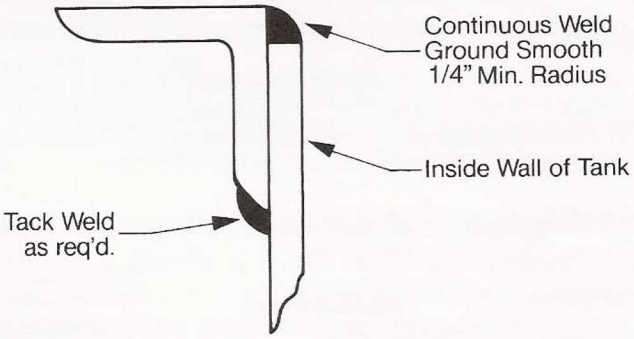
Butt-Weld Seam

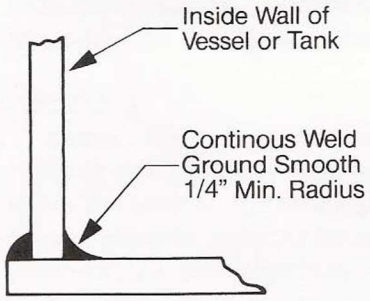


Corner Construction



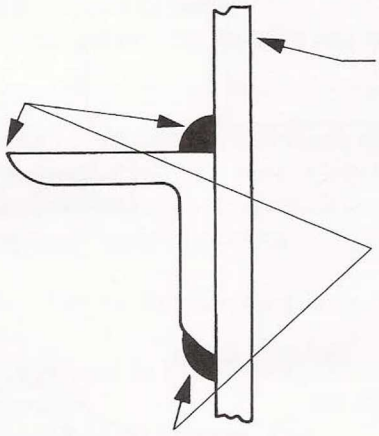
Flange Construction





Acceptable for Internal Coating Only

Stiffeners



Note:
Stiffening members normally are on the outside of vessel. If placed internally or in an area to be lined or coated the welds **must** be continuous, ground smooth with 1/4" min radius, and all sharp edges rounded.

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Attachment B

November 30, 2020 Letter

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EMMAUS, PA 18049
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800-235-1885
FAX: 610-965-2595
E-MAIL: inquiry@electrochemical.net

November 30, 2020

TOKAI CARBON CB
Building a Future of Technology and Trust

Duc Tran
Project Engineer
301 Commerce St. Ste. 500
Fort Worth, TX 76102
(O): 817-380-3496
(C): 630-486-7124

- Tokai P.O. Number: CD-08-028
- EC Sales Order #: 1005073/1005077

Dear Mr. Tran,

Regarding the concerns with on-site work temperature(s):

With our understanding of the average temperatures at the site during the early months of each year, it would be EC's suggestion to delay the start of any on-site tie-in lining work until the site is confident the air and steel surface temperatures can maintain a minimum 55 degrees F - 24 hours per day, otherwise the integrity of the lining application can be compromised.

Based our ISO applications procedures:

- The lining should not be applied when either the ambient air or the steel temperature is less than 55 degrees F.
- If the steel temperature is below 55 degrees F, it should be conditioned for a sufficient amount of time to stabilize above 55 degrees F before the lining is applied.
- For large vessels in a cold environment, it is not possible to increase the temperature of the steel to 55 degrees F within a few hours.

Please let me know if you have any questions or need any additional information.

Michael J. Amant

Michael J. Amant
Sales Manager
Electro Chemical
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Emmaus, PA 18049
610-421-6703 (Direct)
610-965-9061 ext. 223 (Office) | 610-554-9971 (Cell) | 610-965-2595 (Fax)
http://www.electrochemical.net

Attachment C

November 30, 2020 Email

From:	Mike Amant
To:	Tran, Duc
Subject:	RE: Ambient installation temperature Issue
Date:	Monday, November 30, 2020 1:34:16 PM
Attachments:	image001.png

Duc,
Please see separate email.

- We do not have an alternative epoxy or procedures that would allow us to apply the lining at lower temperatures.
- Attempting to apply the lining at lower temperatures would affect any warranty.

Mike

From: Tran, Duc <DTran@tokaicarboncb.com>
Sent: Monday, November 30, 2020 2:25 PM
To: Mike Amant <MAmant@electrochemical.net>
Subject: Ambient installation temperature Issue

Mike,

Please provide the specific reasons and consequences of installing the ECTFE field joint at temperature below 60F. I need this information to request delay from EPA due to ambient temperature at Borger facility. Please provide this as soon as possible.

On a separate email, please provide alternative low temperature materials if any. Would you willing to install the field joints at a lower temperature? If so, what is the lowest temperature? Will this low temperature affect the guarantee?

Thanks,

Duc Tran
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